



**International Center
for Leadership
in Education**



Gold Seal Lesson:

Copernicus Education Gateway

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Grade Span			ICLE Application Model			
K-4	5-8 XX	9-12	A	B	C	D X

Instructional Focus:

Statistics and Probability: Use probability to analyze a given situation
Problem-Solving: Apply a variety of problem-solving strategies
Speaking: Speak for a variety of purposes and audiences.

Performance Task

<p>You are the chair of the fund-raising committee for your school club, which will have a booth in your community's local festival. The booth will cater to children aged ten and under. Design a game of chance, with prizes of varying value, to be featured at your booth. There is a \$25 registration fee to have a booth at this festival. Some things to consider:</p> <ol style="list-style-type: none"> 1. The game must involve no skill! It must be entirely probability based. 2. The game must be designed so that customers will win often enough to keep them interested. 3. Your price structure, value of prizes, and the laws of probability must insure that your club will make a profit. <p>You will present your proposal to your school club at their next meeting, and your proposal must include a simulation of how the game will be played, and a projection of anticipated profit.</p>
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ICLE Essential Skills

Understand the characteristic differences between theoretical and empirical probability. (m 20)
Determine the probability of single and compound events. (m 25)
Speaking: Prepare and deliver individual speeches by gathering information, rehearsing, making eye contact, speaking loudly enough, delivering information in a well-organized fashion, and appealing to the needs of the target audience. (ela 10)

Scoring Guide:

Criteria	4	3	2	1
Independence	The student independently completes the problem.	The student requires some help in completing the problem.	The student requires considerable help in completing the problem.	Even with help, the student does not complete the problem.
Problem Solving	The student's work shows a thorough, methodical plan, for solving the problem.	The student's work shows an adequate plan for solving the problem.	The student's work shows a plan for solving the problem.	The student's work shows that there was no real plan for solving the problem.
Accuracy of Solution	The solution is completely accurate.	There are some minor inaccuracies.	There are many inaccuracies.	The solution is completely inaccurate.
Communication	The solution to the problem is communicated in a clear and appropriate manner.	The solution to the problem is communicated in a somewhat clear and appropriate manner.	The solution is communicated in a confusing manner.	The solution is not communicated.

Keywords

English Language Arts	Mathematics	Science
Reading	Algebra	Earth Science
Writing	Geometry	Life Science
Communications Oral Presentation	Statistics Probability Problem Solving Simulations Prediction	Chemistry
Literature	Calculus	Physics
Other	Trigonometry	Other
	Other	